Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-3. (Cancelled)

4. (Currently Amended) A process for etching away a fixed thickness of silicon oxide from a region of uniform thickness of a silicon oxide layer of [[in]] an integrated circuit structure on a semiconductor substrate in an etching apparatus to form a thinner silicon oxide region of uniform thickness which comprises:

a) exposing a silicon [[an]] oxide surface of an integrated circuit structure on a semiconductor substrate to a plasma consisting essentially of a nitrogen plasma generated by a first rf power source maintained at a power level of from about 250 watts to about 1000 watts; and

b) maintaining on said semiconductor substrate, an rf bias from a second rf power source maintained at a power level of from above zero up to a power level just below a level at which sputtering of said substrate materials would commence on said semiconductor substrate during said exposure of said silicon oxide surface to said nitrogen plasma;

whereby a fixed thickness of silicon oxide will be removed from said silicon oxide region of uniform thickness ~~surface~~, leaving a silicon oxide layer having a thinner region of uniform thickness, with the silicon oxide thickness removed dependent upon the power level of said rf bias on said semiconductor substrate.

5-6. (Cancelled)

7. (Previously Presented) The process for etching away a fixed thickness of silicon oxide of claim 4 wherein said nitrogen plasma consists essentially of a remote rf plasma generated by said first rf power source at a distance from said oxide surface sufficiently far enough that recombination of at least some of the electrons with the ionic nitrogen species occurs so that the flux of ionic nitrogen species will be reduced from the initial flux created at the nitrogen plasma origin,

8. (Cancelled)

9. (Original) The process for etching away a fixed thickness of silicon oxide of claim 4 wherein said etching process is carried out in an etching chamber in said etching apparatus maintained at a pressure of from about 1 millitorr to about 1000 millitorr.

D1

10. (Previously Presented) The process for etching away a fixed thickness of silicon oxide of claim 4 wherein said oxide surface exposed to said nitrogen plasma comprises an oxide layer previously formed on said integrated circuit structure to form a gate oxide thereon.

11. (Currently Amended) A process for etching away a fixed thickness of silicon oxide in an integrated circuit structure on a semiconductor substrate mounted on a substrate support in an etching chamber of an etching apparatus to form a thin silicon oxide layer of uniform thickness, which comprises:

a) exposing a silicon [[an]] oxide surface of an integrated circuit structure on a semiconductor substrate to a plasma consisting essentially of nitrogen formed by igniting said nitrogen plasma in said etching apparatus, using a first rf power source maintained at an rf power level of from about 250 watts up to about 1000 watts; and

b) maintaining, on said substrate support, during said exposure of said silicon oxide surface to said nitrogen plasma, an rf bias from a second rf power source maintained at a power level ranging from above zero up to a power level just below a level at which sputtering of said substrate materials would commence;

whereby a fixed thickness of silicon oxide will be removed from said silicon oxide surface, leaving a silicon oxide layer of uniform thickness, with the silicon oxide thickness removed dependent upon said power level of said rf bias on said substrate support.

12. (Original) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said power level of said rf bias on said substrate support ranges from above zero up to about 100 watts.

13. (Previously Presented) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said nitrogen plasma is maintained using said first rf power source at an rf power level of from about 250 watts to about 500 watts.

14. (Previously Presented) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said nitrogen plasma generated by said first rf power source consists essentially of a remote nitrogen plasma.

15. (Original) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said etching chamber is maintained at a pressure of from about 1 millitorr to about 500 millitorr.

16. (Original) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said oxide surface exposed to said nitrogen plasma comprises an oxide layer previously formed on said integrated circuit structure.

D1

17. (Original) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said oxide surface exposed to said nitrogen plasma comprises unmasked portions of an oxide layer previously formed on said integrated circuit structure.

18. (Original) The process for etching away a fixed thickness of silicon oxide of claim 11 wherein said oxide surface exposed to said nitrogen plasma comprises a surface of one or more oxide portions previously formed on said integrated circuit structure.

19. (Currently Amended) A process for etching away a fixed thickness of silicon oxide in one or more unmasked silicon oxide regions of a silicon oxide layer in an integrated circuit structure on a semiconductor substrate to form one or more very thin gate oxide portions of uniform thickness in said unmasked regions of said silicon oxide layer which comprises:

a) placing said semiconductor substrate on a substrate support in an etching chamber of an etching apparatus, said chamber maintained at a pressure of from about 1 millitorr to about 500 millitorr;

b) exposing one ore more unmasked regions of a silicon oxide layer on ~~an oxide surface of~~ an integrated circuit structure on a semiconductor substrate to a plasma consisting essentially of nitrogen maintained at a power level of from about 250 watts to about 500 watts by a first rf power source and formed by flowing nitrogen gas into said etching apparatus, and then igniting a plasma in said etching apparatus; and

c) maintaining, on said substrate support, during said exposure of said unmasked regions of said silicon oxide layer ~~oxide surface~~ to said nitrogen plasma, an rf bias maintained at an rf power level ranging from above zero up to about 100 watts by said [[a]] second rf power source;

whereby a fixed thickness of silicon oxide will be removed from said unmasked regions of said silicon oxide layer ~~surface~~ to thereby form said very thin gate oxide portions, with the silicon oxide thickness removed dependent upon said rf power level of said rf bias on said semiconductor substrate.

20. (Previously Presented) The process for etching away a fixed thickness of silicon oxide of claim 19 wherein said power level of said second rf power source generating said rf bias on said substrate ranges from above zero up to about 50 watts.

21. (Cancelled)

22. (Original) The process for etching away a fixed thickness of silicon oxide of claim 19 wherein said etching chamber is maintained at a pressure of from about 1 millitorr to about 200 millitorr.

23. (Previously Presented) The process for etching away a fixed thickness of silicon oxide of claim 19 wherein said nitrogen plasma generated by said first rf power source consists essentially of a remote nitrogen plasma.

24. (Currently Amended) A process for etching away a fixed thickness of a silicon ~~of silicon~~ oxide layer having regions of uniform thickness in an integrated circuit structure on a semiconductor substrate in an etching apparatus to thereby form a thin silicon oxide layer having regions of uniform thickness which comprises:

a) forming, in an integrated circuit structure on a semiconductor substrate, a silicon oxide layer having regions of uniform thickness;

b) exposing said regions of said silicon oxide layer in said ~~an oxide surface of an~~ integrated circuit structure on said [[a]] semiconductor substrate to a remote plasma consisting essentially of a remote nitrogen plasma generated by a first rf power source maintained at a power level of from about 250 watts to about 500 watts to remove a uniform thickness of silicon oxide from said exposed regions of uniform thickness of said silicon oxide layer; and

c) ~~b)~~ maintaining on said semiconductor substrate an rf bias generated by a second rf power source maintained at a power level of from about 10 watts to about 50 watts during said exposure of said exposed regions of said silicon oxide layer ~~oxide surface~~ to said remote nitrogen plasma;

whereby a fixed thickness of silicon oxide will be removed from said exposed regions of said silicon oxide layer ~~surface~~, with the silicon oxide thickness removed dependent upon the power level on said semiconductor substrate of said rf bias from said second rf power source.